Kelt year pa

CLAIMS

1. Medicine comprising the polyphosphonate compound with general formula I as active constituent:

$$\begin{array}{c} OR_{6} \\ R_{5}O-P = O \\ B \\ R4-X-A-N-R2 \\ R3 \\ R_{8}O-P = O \\ OR_{7} \end{array} \qquad (I)$$

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10

in which:

- 1) R1, R2, R3, R5, R6, R7, R8 represent an atom of hydrogen or a C1 C6 alkyl or aryl group, independently of each other;
- 2) X is a carbon C atom or a nitrogen N atom;
- 3) A represents a C1 C6 alkyl or aryl group, a carbonyl group or a hydrophilic group, B and C represent a chemical bond, a C1 C6 alkyl or aryl group, a carbonyl group, or a hydrophilic group;

15

- 4) R4 represents:
- a) either a hydrogen atom, an OH group, a C1 C6 alkyl or aryl group, or a C1 C6 carboxylic acid, a free doublet (if X is a nitrogen N);
 - b) or a phosphonate with formula:

20

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in which R9, R10 represent a hydrogen atom, or a C1 - C6 alkyl or aryl group, independently of each other;

c) or a quaternary ammonium group with formula

in which R11, R12, R13 represent a hydrogen atom, or a C1 - C6 alkyl or aryl group in independently of each other, and B represents a chemical bond, a C1 - C6 alkyl group, a carbonyl group or a hydrophilic group;

- d) or a hydrophilic group;
- e) or a polyphosphonate compound with the following 15 general formula II: